

2016 Pipeline Safety Conference

LPG Information Session

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Those seeking legal reference should refer to the applicable code itself.



Purpose

This information session will provide an introduction and familiarization for the attendees with the basic code requirements for operating small LPG distribution systems.

The presentation will cover various topics from design, operations, maintenance, qualifications, programs, etc.

As such this presentation will provide high level introduction into code requirements and concepts. Those seeking legal reference should consult the applicable code itself.

LPG Systems

Applicable Codes



Types Jurisdictional Systems

- * Propane-Air/Peak Shaving facilities
- * LPG Distribution Systems



Propane-Air/Peak Shaving facilities

- * Provides petroleum gas or petroleum gas/air mixtures to a natural gas distribution system
- * Must meet requirements of NFPA 58 and NFPA 59 per §192.11



LPG Distribution Systems



- * Any pipeline system that transports only petroleum gas or petroleum gas air mixtures to-
 - * 10 customers from a single source
 - * 2 to 9 customers if system is in a public place

LPG Systems

Applicable Codes



Applicable Codes

- * Pipeline Safety Codes:

- * Parts 191, 192, 199

- * Incorporated by Reference (IBR)

- * NFPA 58

- * Aggregate liquid tank volumes of 4,000 gal. and less

- * NFPA 59

- * Aggregate liquid tank volumes of 4,000 gal. and more

- * § 56-265.4:6 of the Code of Virginia (2009)

Conflicts

- * If the NFPA Standard is silent or less prescriptive than Part 192, **Part 192 governs.**
- * If 192 does not address an item/task/requirement and NFPA does, **the appropriate NFPA governs.**

What Does This Mean for LPG Distribution Systems?

1. Determine if the LPG facility is a NFPA 58 or 59 Facility
2. Review 192 requirements for the facility
3. Review applicable NFPA requirements for the facility
4. Determine which one is **more prescriptive**
5. Follow that requirement

Jurisdiction



Jurisdiction for LPG Distribution Systems

A system is jurisdictional based on the following:

1. Per the scope definition of Part 192

OR

2. If the operator provides “Non-Utility Gas service”

Per 192.1

- * A system is not jurisdictional if it serves fewer than 10 customers if no portion of the system is located in a public place or;
- * A single customer, if the system is located **entirely on the customer's premises** (no matter if a portion of the system is located in a public place)

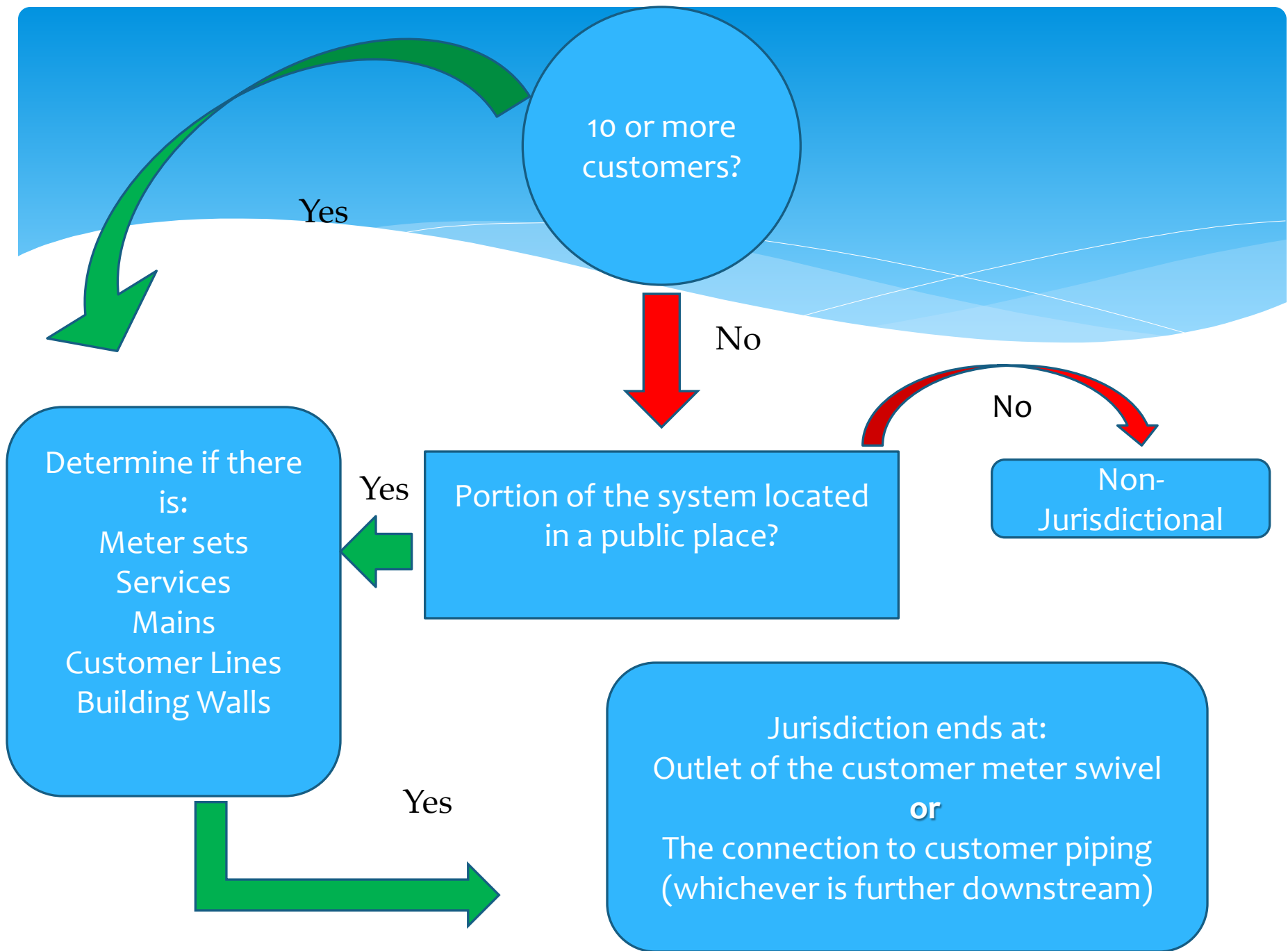
Public Place

- * “Public Place” is integral to determining many LPG system’s jurisdictional status.
- * Public place is **not** defined in:
 - * §192
 - * NFPA 58 or NFPA 59



Public Place

- * Per PHMSA Interpretations and Advisory Bulletins “Public Places” are:
 - * Overall generally open to all persons in a community
 - * Including commercial buildings
 - * Public rights-of-way
 - * Property frequented by the public
 - * Not restricted
 - * Can be private areas where the public is expected to be
 - * Examples highway, public right-of-way, churches, schools and commercial buildings



Jurisdiction

- Jurisdiction can also come from §56-265.4:6 (Non-Utility Gas Code)



Non-utility gas service-

the sale and distribution of propane, propane-air mixtures, or other natural or manufactured gas to **two or more customers** by way of underground or aboveground distribution lines by a person ***other than a natural gas utility.***

Non-Utility Gas Operator

- * A person (as defined in the law) other than a natural gas utility providing non-utility gas service
- * Must apply to the Commission for and obtain approval **prior** to providing non-utility gas service*

*See § 56-265.4:6 for full requirements and responsibilities

Modifications of “Pre- Standards” Pipe

192.13(a) General

“No person may operate a segment of pipeline that is readied for service **after March 12, 1971** unless:

- (1) Installed and constructed according to Part 192
- (2) The pipeline qualifies for use under this part according to conversion of service under §192.14

192.13 General (Cont.)

- * Pipe pre-March 12, 1971

- * Changes, modifications, repairs, relocations or changes have to comply with Part 192

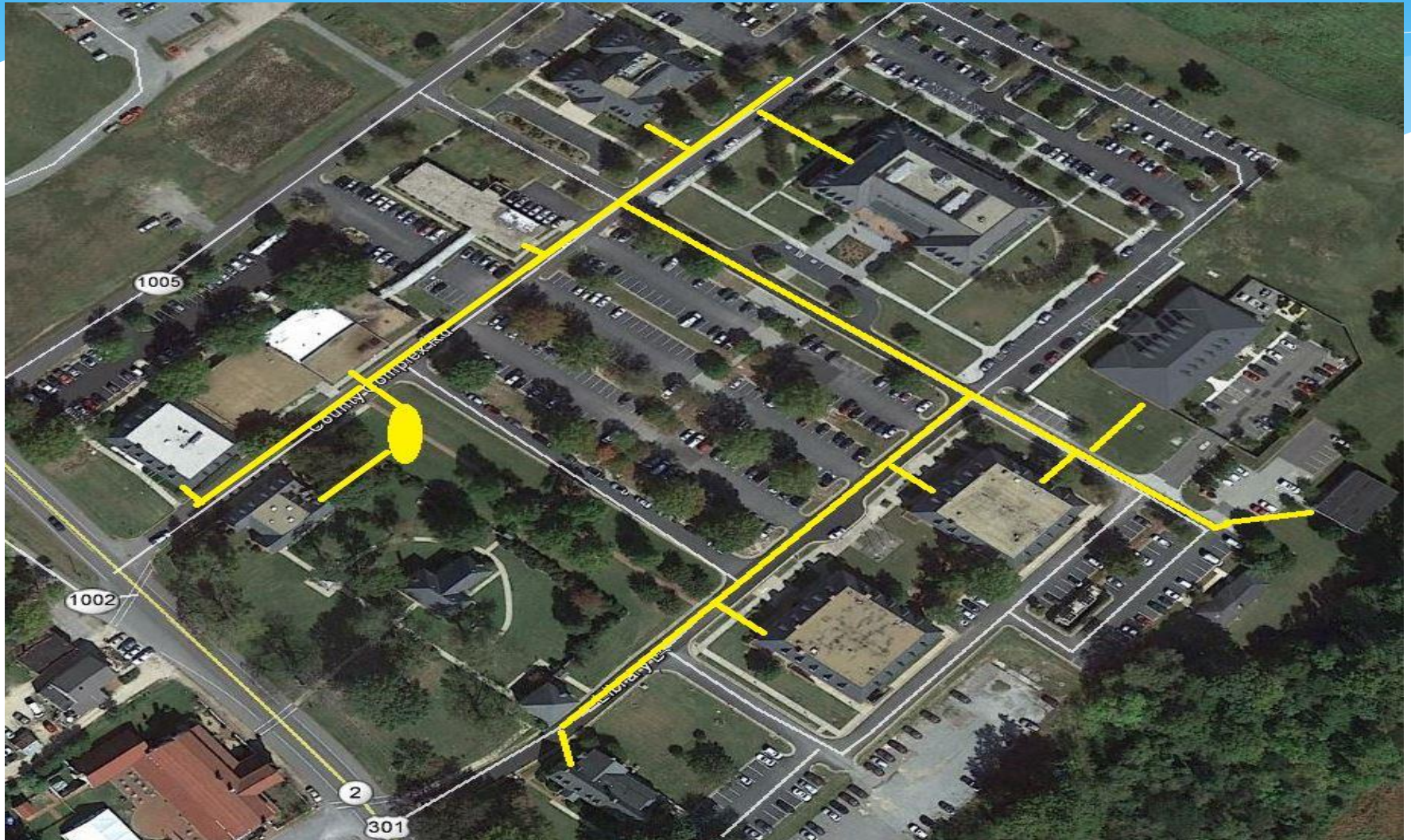
- * § 192.13 (c) Plans, programs, procedures

- * Operator is required to:
 - * Maintain
 - * Modify as appropriate and
 - * Follow plans, procedures, and programs as required by 192.

Possible LPG Jurisdictional Examples



10 or more



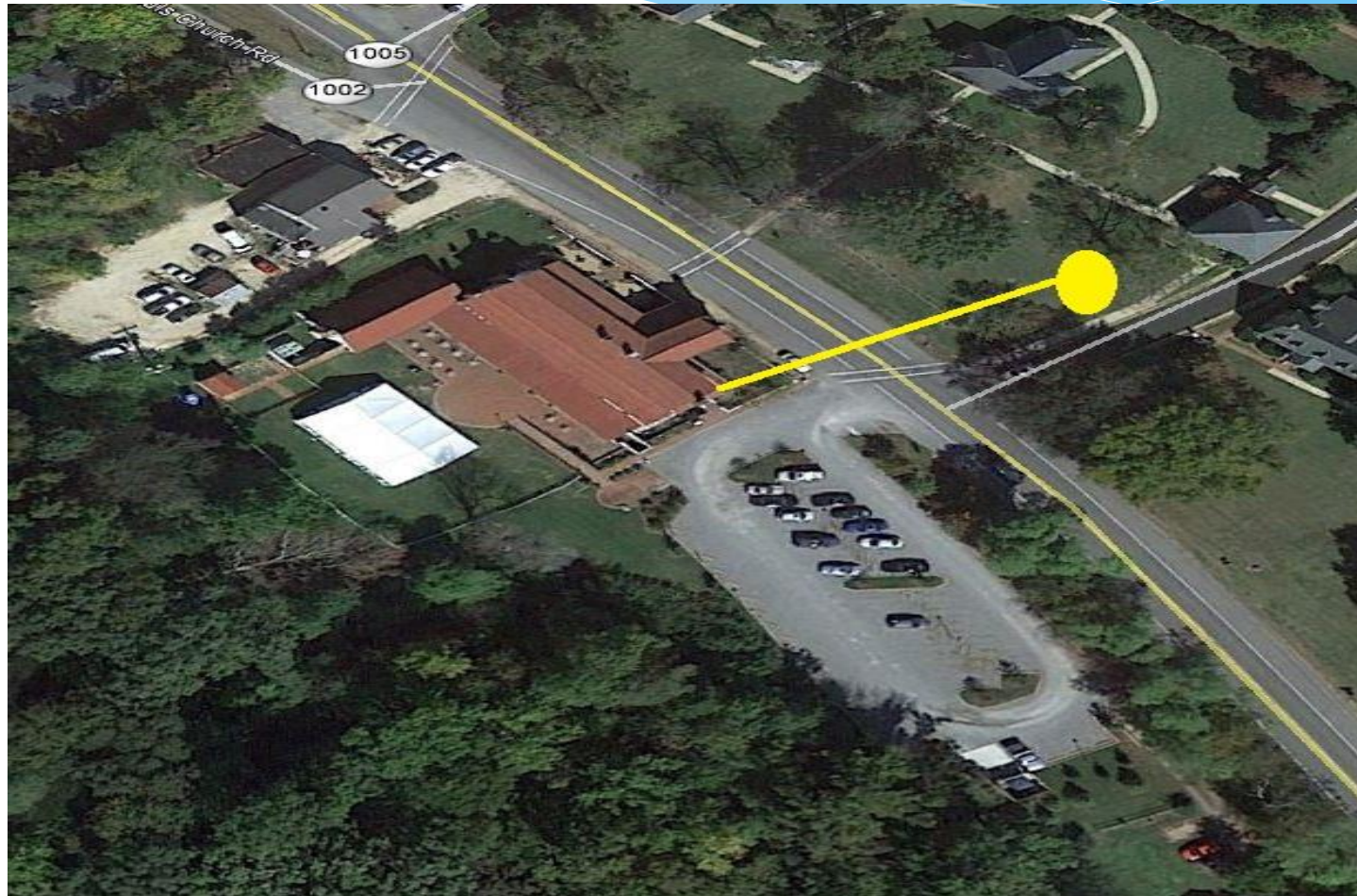
Single Customer System on Customer Property



System With Less Than 10 Customers In A Public Place



Single Customer with system not located entirely on customer's premise



What Happens if a System is Jurisdictional?

- * Required to comply with Commission Standards:
- * Manuals must be written and reviewed:
 - * Operating and Maintenance
 - * Emergency
 - * Anti-Drug and Alcohol Plan
 - * Operator Qualification Programs
- * Incident Reports
 - * Telephonic reports of incident
- * Safety Related Condition Reports
- * OPID & Annual Reports
 - * Annual reports if more than 100 customers

What Happens if a System is Jurisdictional?

Records must be kept for required time periods:

- * Regulator Inspections
- * Cathodic Protection Inspections
- * Critical Valve Inspections
- * Odorization Testing per §192.625
(with instrumentation and sniff testing at extremities of system)

An operator is required to provide records to establish compliance with this Part.

Applicable Parts

- * **Part 191-** Annual Reports, Incident Reports, and Safety Related Condition Reports
- * **Part 192-** Minimum Federal Safety Standards
- * **Part 199-** Drug and Alcohol Testing

LPG Systems

Lessons Learned



Staff's Pipeline Safety Inspections

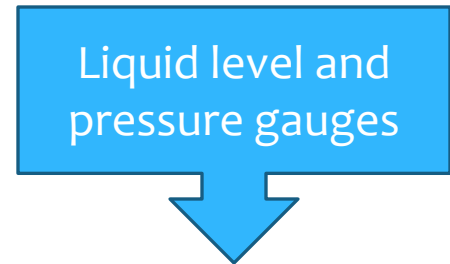
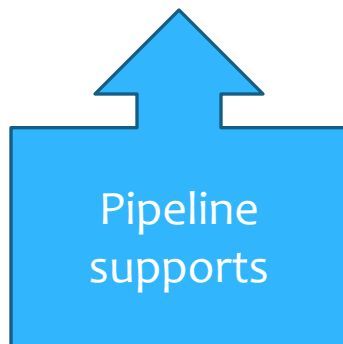
- * Help ensure the safe operation of gas facilities through inspection of:
 - * Existing facilities
 - * Operations & maintenance activities
 - * New construction
 - * Required programs
 - * Investigation of incidents

Recent Issues

- * The following are examples of recent issues discovered during inspection activity of LPG Distribution and Propane-Air/Peak Shavings facilities:

Tank spacing and
positioning







Meter/Service shut off



Pipeline Markers-
Who is contacted in
case of an emergency?



Abnormal operating
conditions despite
recent Company
personnel on site



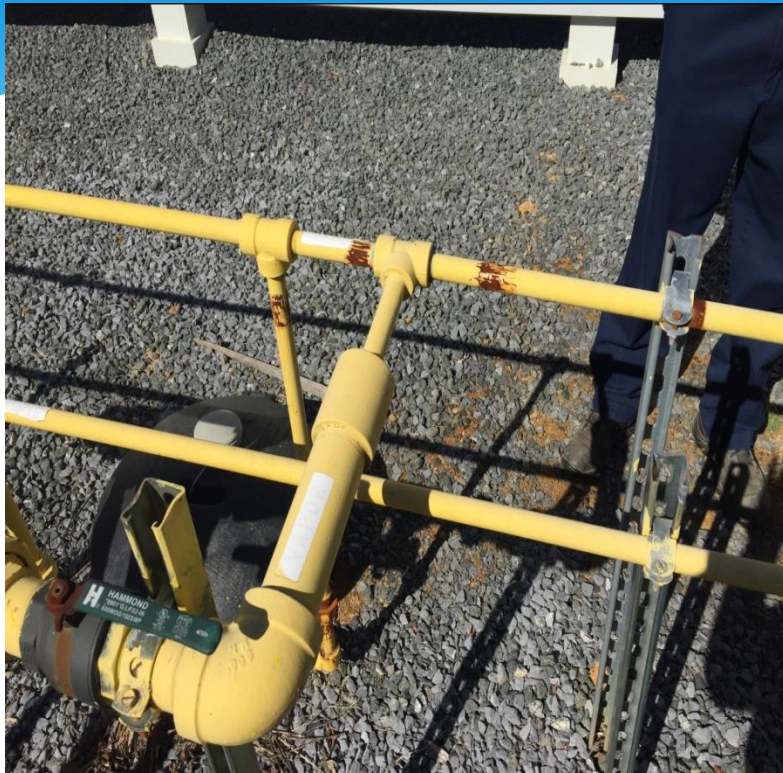
Secondary exit that
is locked from the
outside



Missing or illegible
data plates. UG tanks
installed AG.

Combustible
pipeline
supports





Atmospheric
corrosion and
coating issues

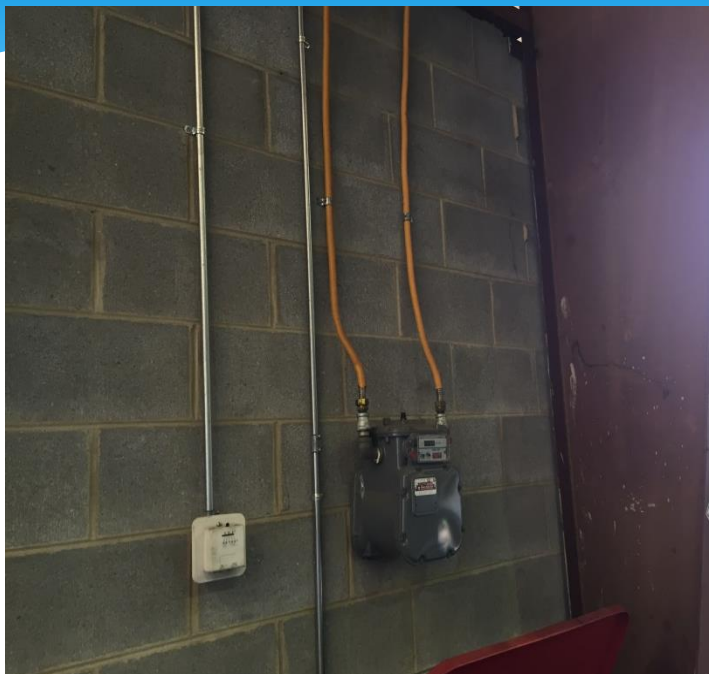




Missing pipeline
markers



Regulator placement



Do programs
recognize unique
installations? DIMP?



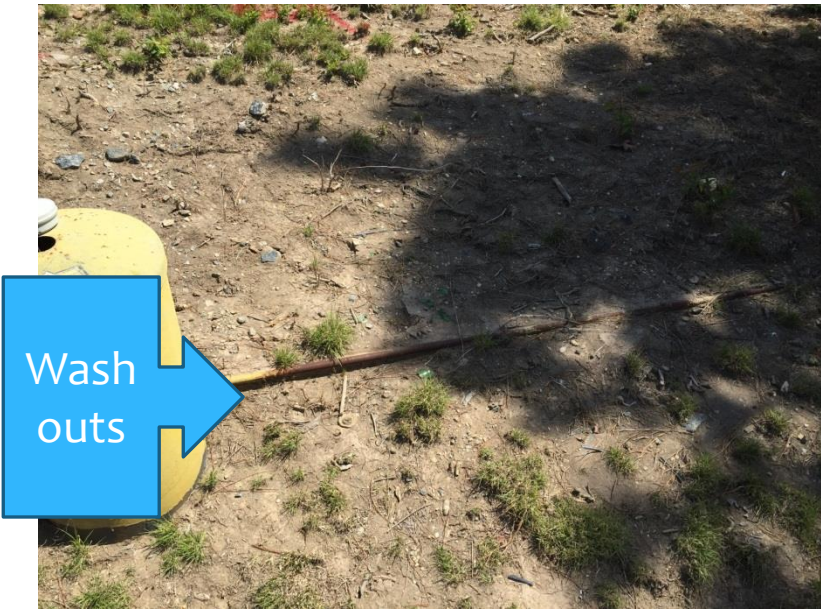
Meter protection



Tank protection



Tank placement



Wash outs





NFPA explosion proof
wiring standards



Missing ESD Placards



Fence line not completed- flammable materials and ignition sources

Resources



Resources

- * Operator's Guides

- * Small Distribution

- * LPG

- * Operator Qualification

- * <http://www.phmsa.dot.gov/pipeline/tq/manuals>

- * Utility and Railroad Safety

- * Online Applications

- * Links, Forms and Code

- * <https://www.scc.virginia.gov/urs/index.aspx>



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